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EXAMINER

MIRZA, ADNAN M

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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2141

DATE MAILED: 02/19/2004

17

Please find below and/or attached an Office communication concerning this application or proceeding.

2

Office Action Summary

Application No.

09/347,112

Applicant(s)

BIMM ET AL.

Examiner

Adnan M Mirza

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 December 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-75 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-75 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-75 are rejected under 35 U.S.C. 103(a) as being unpatentable over Elliott et al (U.S. 6,335,927) and in view of Dungan et al (U.S. 6,363,411).

As per claim 1 Elliott disclosed a computer-implemented method for activating a service in a network, the method comprising: (a) receiving a service order having one or more service components with each component being in a generic service request format (col. 23, lines 14-21); (b) routing each of the one or more service components to an appropriate domain manager (col. 44, lines 30-36); wherein the generic service request format is generic to a plurality of services having a plurality of vendors or version numbers (col. 45, lines 15-26).

However Elliott failed to disclose (c) translating the service component in each appropriate domain manager into corresponding device specific parameters; and (d) activating network elements responsive to the device specific parameters in order to activate the network service. In the same field of endeavor Dungan disclosed (c) translating the service component in each appropriate domain manager into corresponding device specific parameters (col. 22, lines 47-

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61); (d) activating network elements responsive to the device specific parameters in order to activate the network service (col. 22, lines 47-67).

It would have been obvious to one having ordinary skill in the art at the time that invention was made to have incorporated the (c) translating the service component in each appropriate domain manager into corresponding device specific parameters; and (d) activating network elements responsive to the device specific parameters in order to activate the network service as taught by Dungan in the method of Elliott to make the service delivery system more versatile.

3. As per claim 2 Dungan disclosed wherein the act of routing each of the one or more service components to an appropriate domain manager includes (1) parsing the service order into the one or more service components (col. 13, lines 30-56), and (2) identifying for each service component a corresponding domain manager based on parameters within the service component (col. 42, lines 43-54).

4. As per claim 3 Elliott-Dungan disclosed wherein each service component has a predetermined set of generic parameters, the act of translating the service component includes the acts of (1) mapping the service activation request into specific element transactions (col. 50, lines 39-61), (2) decomposing at least one of the service components into element activation requests using object networks comprising service activation objects (col. 14, lines 20-36), (3) converting device neutral generic service component into device specific terminology (col. 81,

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lines 45-50), and (4) composing commands based on a command template stored in the service activation object (Elliott, col. 31, 25-41).

5. As per claim 4 Dungan disclosed wherein a service component can represent a single service in one vendor's domain and multiple services in another vendor's domain (col. 36, lines 23-52).

6. As per claim 5 Elliott disclosed wherein the act of translating the service component includes the acts of providing default and validation support (col. 125, lines 10-34).

7. As per claim 6 Dungan disclosed wherein the act of mapping the service activation request into specific element transactions employs parameter names and values (col. 22, lines 47-67).

8. As per claim 7 Dungan disclosed wherein the act of decomposing a universal service into specific services or commands supported by the network provides a method of finding an appropriate object network for the service activation request (col. 36, lines 24-47).

9. As per claim 8 Dungan disclosed wherein the act of decomposing a universal service into specific services or commands supported by the network allows for network views of the appropriate object network (col. 35, lines 15-37).

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10. As per claim 9 Dungan disclosed wherein the act of command composing allows more vendor specific details to be encoded in the object network resulting in a simpler element management system (col. 35, lines 51-67).

11. As per claim 10,47,52 Elliott-Dungan disclosed wherein the act of activating network elements responsive to the device specific parameters in order to activate the network service includes (1) interpreting the high level commands contained in the received component data (col. 25, lines 6-13), and (2) sending the translated commands to a destination network element in a device specific syntax through corresponding element management system by referencing an appropriate object network (col. 94, lines 51-67).

12. As per claim 11 Dungan disclosed further comprising an act of rolling back an implemented service order by combining object networks and developing new object relationships if the change is canceled (col. 18, lines 43-58).

13. As per claim 12 Dungan disclosed further comprising an act of rolling back an implemented service order by combining object networks and developing new object relationships if the change is unsuccessfully implemented (col. 18, lines 43-58).

14. As per claim 13 Dungan disclosed further comprising an act of recovering by trying another service, after an initial activation attempt fails by combining object networks and developing new object relationships (col. 22, lines 41-60).

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15. As per claim 14 Dungan disclosed further comprising an act of recovering by trying another combination of services, after an initial activation attempt fails by combining object networks and developing new object relationships (col. 24, lines 19-32).

16. As per claim 15 Dungan disclosed further comprising an act of scheduling by defining orders and components with scheduled date parameters (col. 58, lines 1-6).

17. As per claim 16 Dungan disclosed further comprising an act of dependency resolution by combining service components in a service order and entering associated dependencies (col. 36, lines 23-52).

18. As per claim 17 Dungan disclosed further comprising an act of service activation and service modeling that uses object networks based activation and translation to support generic inputs instead of device specific inputs by employing a set of templates to enable generic description of a service order (col. 36, lines 23-52).

19. As per claim 18 Dungan disclosed further comprising the acts of (1) service activation, and (2) service modeling using object networks that provide for service evolution (col. 13, lines 45-56).

20. As per claim 19 Dungan disclosed further comprising the acts of (1) building vendor/device specific service activation object networks that can have behavior modified at run time without resetting a service activation system (col. 13, lines 23-67).

21. As per claim 20 Dungan disclosed wherein the object network can persist the service translations (col. 73, lines 54-67).
22. As per claim 21 Dungan disclosed wherein a plurality of possibilities can exist for modeling detailed decomposition scenarios by applying object networks based service modeling using service activation objects of the type including atomic, multi-step, and logical (col. 58, lines 41-67).
23. As per claim 22 Dungan disclosed wherein the act of referencing the appropriate object network for a service and action for a specific network element employs a particular parameter (col. 40, lines 55-66).
24. As per claim 23 Dungan disclosed wherein the act of referencing the appropriate object network for a service and action for a specific network element employs a family of devices to which the network element belongs (col. 58, lines 41-67).
25. As per claim 24,44 Elliot-Dungan disclosed a service activation system for activating a service on a target network, comprising: (a) an order processing system for receiving a service order having one or more generic service components (Dungan, col. lines 47-58); (b) at least one domain manager communicatively connected to the order processing system for receiving the service order, wherein the order processing system is adapted to route the one or more generic service components to an appropriate domain manager of the at least one domain manager and

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the domain manager translates said generic service component into corresponding device specific parameters (Elliot, col. 17, lines 62-67 & col. 18, lines 1-8); and (c) at least one element management system communicatively connected to at least one domain manager for receiving the device specific parameters in order to activate the service on the target network (Elliot, col. 44, lines 30-36). Wherein the generic service components are generic to a plurality of services having a plurality of vendors of version numbers (Elliot, col. 45, lines 15-26).

26. As per claim 25,56 Elliott disclosed further comprising at least one peer manager communicatively connected to the at least one domain manager to route the one or more generic service components to an appropriate domain manager of the at least one domain manager (col. 18, lines 1-18), wherein the one or more generic service components are being received from the at least one order processing system having one or more order processors communicatively connected to said peer manager (col. 18, lines 36-45).

27. As per claim 26,57 Dungan disclosed further comprising at least one gateway as an interface to said service activation system for receiving a service activation request one or more service provisioning systems (col. 43, lines 14-40).

As per claim 27,58 Dungan disclosed further comprising at least one order repository for storing network model and service activation related information including service activation objects that are initiated from the derived executing said generic service order components (col. 21, lines 64-67 & col. 22, lines 1-31).

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28. As per claim 28,59 Dungan disclosed further comprising at least one processing engine in the said gateway for (1) sending and receiving messages, and (2) parsing managed network element responses (col. 7, lines 9-33).

As per claim 29,60,61 Elliot-Dungan disclosed a service activation system for activating a service on a target network management system or other information management system with universal or generic informational changes entered in one or more service provisioning systems (Dungan, col. 13, lines 6-19), the system comprising: (a) an activation system further comprising: an order processing system communicatively interconnected between said service provisioning systems and, at least one domain manager communicatively connected to the order processing system for receiving a service, order comprising at least one generic service component (Dungan, col. 14, lines 1-35 & col. 14, lines 57-67), wherein at least one domain manager translates said at least one generic service component into corresponding device specific parameters, and the order processing system is adapted to route the at least one generic service component to an appropriate domain manager of the at least one domain manager, one or more peer managers communicatively connected to the at least one domain manager to route the at least one generic service component to an appropriate domain manager of the at least one domain manager (Elliot, col. 17, lines 62-67 & col. 18, lines 1-8), wherein the at least one generic service component are being received from the order processing system, wherein each of at least one said domain manager having at least one element management system communicatively connected to the at least one domain manager for receiving the device specific parameters in order to activate the service on the target network (Elliot, col. 44, lines 30-36); and (b) at least one gateway as an interface to the service provisioning systems, communicatively

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connected to said service provisioning system for receiving a service activation request (Dungan, col. 43, lines 14-40), wherein said gateway having a processing engine for (1) sending and receiving messages, and (2) identifying service order and component data for population into order database tables (Dungan, col. 7, lines 9-33). Wherein the at least one generic service component is generic to a plurality of services having a plurality of vendors or version numbers.

29. As per claim 30,45,50,62 Dungan disclosed wherein the order processing system further comprising: one or more order processors; an order repository; and one or more messaging interfaces, wherein the order processing system communicatively interconnected between said service provisioning systems and said domain managers via events or said peer managers (col. 15, lines 63-67 & col. 16, lines 1-7) and the order processing system having a rule engine for performing tasks including advanced processing of service activation objects that are initiated from the derived service order components as determined in the gateway defined by at least one user employing said service provisioning systems (col. 18, lines 38-58).

30. As per claim 31,46,51,63 Elliot-Dungan disclosed wherein the order processing system processes service responsive to the service order parameters; processes objects to carry out the predefined policies for activating services on the network responsive to the particular incoming generic component activation requests (Elliot, col. 23, lines 14-21 & col. 24, lines 38-43); manages the element, network, service, and business layers; and determines using an aggregate of element and network service request messages, how to activate the requested service on the physical managed network element; employs at least one of said peer manager to communicate

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with said domain managers and said element management systems; uses generic rule sets to submit component activation request, request closure, request the component activation to be rolled back or reversed, and request component activation status; and performs the service management functions, inventory management, and distribution of service orders to domain managers managing their respective destination network elements via element management systems (Dungan, col. 19, lines 52-67 & col. 1-67).

31. As per claim 32,64 Elliot disclosed wherein the order processing system further comprising: a plurality of graphical user interfaces facilitating access to said order processing system (col. 118, lines 54-63), wherein user interface may be any suitable device such as a display terminal for providing users with interactive access to the order processing system (col. 111, lines 14-30).

32. As per claim 33,65 Elliot-Dungan disclosed wherein the domain manager receives generic component activation requests from order processing system and maps the activation request into specific element transactions through the use of service activation objects stored in a database (Elliot, col. 33, lines 45-67); translates vendor neutral generic service components into vendor specific terminology by interpreting the high level commands contained in the received component data and sends the translated commands to a destination network element in a device specific syntax through corresponding element management systems (Elliot, col. 34, lines 60-67); decomposes generic service component into element activation requests using object networks and routes vendor specific parameters to the appropriate element management system

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by referencing object network for a service and action for a specific network element using a particular parameter (Elliot, col. 47, lines 55-67); provides a means to rollback an implemented change if the change is canceled or unsuccessfully implemented by combining object networks and developing new object relationships; provides a means to perform scheduling and dependency resolution by population of date and predecessors parameters; and provides a means for recovery or try another service or combination of services, after an initial activation attempt has failed by combining object networks and developing new object relationships (Dungan, col. 13, lines 1-67).

33. As per claim 34,66 Dungan disclosed further comprising an user interface operably connected to the gateway and the activation system for displaying to a user status and alert information (col. 67, lines 15-26).

34. As per claim 35,67 Dungan disclosed wherein the gateway comprises a plurality of distributed gateways (col. 46, lines 15-41).

35. As per claim 36,68 Dungan disclosed a memory device having instructions that when loaded into and executed by at least one computer implements the service activation system (col. 26, lines 23-39).

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36. As per claim 37,69 Dungan disclosed further comprising a service builder editor operably connected to the order repository of the order processing system (col. 21, lines 64-67 & col. 22, lines 1-31).

37. As per claim 38-43,70 Dungan disclosed wherein the service activation system comprises means for tracking of the use and availability of managed network elements (col. 36 lines 8-67).

38. As per claim 48,53,71-75 Elliot-Dungan disclosed a universal service activation system comprising: means for populating into a service provisioning system one or more universal service components, wherein said one or more universal service components each provide a vendor neutral and device neutral definition of a service; means for grouping said universal service component instances together to compose a service order (Elliot, col. 23, lines 14-21); means for spawning of the desired service order design to an activation system through at least one messaging interface; means for processing of a service order by the activation system; means for routing said universal service components to an appropriate domain manager (Elliot, col. 44, lines 30-36); means for translating vendor neutral said universal service components into vendor specific format; means for translating device neutral said universal service components into device specific format (Elliot, col. 34, lines 60-67); means for decomposing said universal service components into element activation requests using object networks; means for routing vendor specific parameters to an appropriate element management system; means for routing location specific parameters to an appropriate element management system (Elliot, col. 47, lines 55-67); means for initiating vendor specific events, delivering activation commands or data to

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network elements through an appropriate element management system to enable the desired service; means for initiating device specific events, delivering activation commands or data to network elements through an appropriate element management system to enable the desired service; and means for sending status responses through the activation system and an appropriate messaging interface to the appropriate one or more service provisioning systems (Dungan, col. 36, lines 8-52). Wherein the one or more universal service components are generic to a plurality of services having a plurality of vendors or version numbers (Elliot, col. 45, lines 15-26).

39. As per claim 49 is rejected on the basis of claim 1. The wording is not same as to claim 1 but in terms of methodology the claim 49 does read on claim 1.

40. As per claim 54 has similarity to claim 24 the only difference is that claim 54 states “at least one connection into an order database for receiving a service activation request one or more service provisioning systems”. The following statement can be covered under claim 24 order processing system therefore claim 54 is rejected on the basis of claim 24.

41. As per claim 55 has similarity to claim 24 the only difference is that claim 55 using “Network management system” where claim 24 has “Element management system” but in the networking art “Element management system” is part of “Network Management system”. Claim 55 is rejected on the basis of claim 24 and vice-versa.

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42. As per claim 61 has similarity to claim 29 the only difference is that claim 61 using “Network Management system” instead of “Element Management System” but according to the Networking art The “Element Management System” is part of “ Network Management System”. Therefore claim 61 is rejected on the basis of claim 29 and vice-versa.

Applicant’s arguments are as follows:

43. Applicant argued that prior art did not teach that a received transaction from a customer service request comprises one or more service components in a generic service request form. As to applicant’s argument Elliot disclosed calls (or transactions) will originate in a network from a customer service request, the ISP will receive the transaction and provide service by first identifying the customer and forwarding the transaction to a generalized service engine (col. 23, lines 14-18). One ordinary skill in the art can be established that the service requests from service components are in some kind of form contains certain kinds of parameters like customer or components identifications. In the prior art Elliot these request forms are forwarded to service engine where they are processed.

44. Applicant argued that prior art did not teach or suggest translating the service components in each appropriate domain manager into corresponding device specific parameters. As to applicant’s argument Dungan disclosed the service profile is downloaded to the service node by provisioning the information into data management as will be described in further detail

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with respect to Fig. 5(f). The NOS, acting as DM client, is notified of the change in service profile information via the DM API. In a preferred embodiment, SA sends a message to NOS Name translation (ANT) function in each SLEE on which the service will be executed to direct a name translation function to re-point the logical name for the service to the physical address or object reference of the version that is being activated (col. 22, lines 52-61). In the reference of Dungan the DM act as a Domain manager which become the clients of Name Translation by translating the services in terms of logical and physical addresses.

45. Applicant argued that prior art did not disclose a means for translating a vendor neutral universal service component into vendor specific form.

These applications also provide the database access on behalf of the external systems or network element such as Order Entry or Switch requested translations (col. 34, lines 64-67). One ordinary skill in the art can establish that Network element could also be described as Vendor universal service component where order entry form can also be translated as service request form.

46. Applicant argued that prior art did not disclose routing of universal service components included in a service order to an appropriate domain manager.

As to applicant's argument Elliot disclosed a management domain that is wholly located within a parent management domain. An application process within a managed domain which effects monitoring and control functions on managed objects and/or management sub-domains (col. 44, lines 31-36).

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47. Applicant argued that prior art did not disclose the generic service request format “ is generic to a plurality of services having a plurality of vendors or version numbers”.

As to applicant’s argument Elliot disclosed the service ordering deployment, Provisioning, Quality of service agreements, and quality of service monitoring are in the ISP Service Management service layer. Customers will have a restricted view of the SM layer to monitor and control their services. The SM layer provides a manager that interacts with the agents in the NLMs (Elliot, col. 45, lines 15-26). One ordinary skill in the art at the time of invention can be interpreted those services as generic services.

Conclusion

48. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

49. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Adnan Mirza whose telephone number is (703)-305-4633.

50. The examiner can normally be reached on Monday to Friday during normal business hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dharia Rupal can be reached on (703)-305-4003. The fax for this group is (703)-746-7239.

51. The fax phone numbers for the organization where this application or proceeding is assigned are as follows:

(703)-746-7239 (For Status Inquiries, Informal or Draft Communications, please label "PROPOSED" or "DRAFT");

(703)-746-7239 (For Official Communications Intended for entry, please mark "EXPEDITED PROCEDURE"),

(703)-746-7238 (For After Final Communications).

52. Any Inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)-305-3900.

Any response to a final action should be mailed to:

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BOX AF

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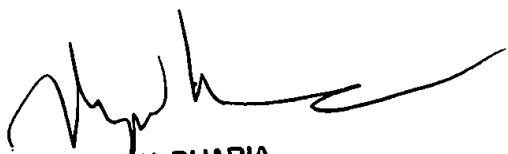
Or faxed to:

Hand-delivered responses should be brought to 4th Floor Receptionist, Crystal Park II,
2021 Crystal Drive, Arlington, VA 22202.

AM

Adnan Mirza

Examiner


RUPAL DHARIA
SUPERVISORY PATENT EXAMINER